



bc
#13

RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/857,518
Source: Pg/09
Date Processed by STIC: 5/15/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

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- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
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FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
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Revised 01/29/2002



PCT09

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/857,518

DATE: 05/15/2002

TIME: 16:13:41

Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

Does Not Comply
Corrected Diskette Needed
 pg 1-2, 4-7, 9-11,
 13-16, 18-24

3 <110> APPLICANT: Aharoni, Asaph
 4 Lucker, Joost
 5 Verhoeven, Harrie A.
 6 van Tunen, Arjen J.
 7 O'Connell, Ann P.
 9 <120> TITLE OF INVENTION: Fruit Flavour Related Genes And Use Thereof
 11 <130> FILE REFERENCE: 160721
 13 <140> CURRENT APPLICATION NUMBER: US/09/857,518
 14 <141> CURRENT FILING DATE: 2002-03-29
 16 <150> PRIOR APPLICATION NUMBER: EP 98204018.0
 17 <151> PRIOR FILING DATE: 1998-12-02
 19 <150> PRIOR APPLICATION NUMBER: EP 99200739.3
 20 <151> PRIOR FILING DATE: 1999-03-12
 22 <160> NUMBER OF SEQ ID NOS: 50
 24 <170> SOFTWARE: PatentIn Ver. 2.1

ERRORED SEQUENCES

763 <210> SEQ ID NO: 6
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 768 <213> ORGANISM: Fragaria x ananassa
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 797 130 135 140

<220> ← insert this mandatory
 name identifier
 whenever <221>
 <222>, or <223>
 is shown
 (global error)

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Output Set: N:\CRF3\05152002\I857518.raw

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809 195 200 205
813 Met Glu Ala Leu Trp Phe Ala Gly Lys Lys Val Ala Thr Arg Arg Phe
814 210 215 220
816 Val Phe Gly Val Lys Ala Ile Ser Ser Ile Gln Asp Glu Ala Lys Ser
817 225 230 235 240
819 Glu Ser Val Pro Lys Pro Ser Arg Val His Ala Val Thr Gly Phe Leu
820 245 250 255
822 Trp Lys His Leu Ile Ala Ala Ser Arg Ala Leu Thr Ser Gly Thr Thr
823 260 265 270
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826 275 280 285
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829 290 295 300
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832 305 310 315 320
834 Asp Leu Lys Leu Cys Asp Leu Val Asn Leu Leu Asn Gly Ser Val Lys
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841 355 360 365
843 Glu Pro Ala Pro Asp Ile Tyr Leu Phe Ser Ser Trp Thr Asn Phe Phe
844 370 375 380
846 Asn Pro Leu Asp Phe Gly Trp Gly Arg Thr Ser Trp Ile Gly Val Ala
847 385 390 395 400
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850 405 410 415
852 Gln Cys Gly Ser Gly Ile Glu Ala Trp Val Asn Leu Glu Glu Glu Lys
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855 Met Ala Met Leu Glu Gln Asp Pro His Phe Leu Ala Leu Ala Ser Pro
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860 Lys Thr Leu Ile
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1690 Thr Pro Lys His Arg Leu Gln Ile Ser Asp Leu Asp Met Ile Val Pro

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Output Set: N:\CRF3\05152002\I857518.raw

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1697          50          55          60
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1700          65          70          75          80
1702 Arg Lys Ile Glu Ile Leu Cys Asn Gly Glu Gly Val Leu Phe Leu Glu
1703          85          90          95
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1706          100          105          110
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1714          130          135          140
1716 Gly Val Cys Val Gly Thr Arg Val Asn His Thr Leu Val Asp Gly Ala
1717          145          150          155          160
1719 Ser Ala Tyr His Ile Ile Asn Ser Trp Ala Glu Thr Thr Arg Gly Val
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1722 Pro Ile Ser Thr Gln Pro Phe Tyr Asp Arg Thr Ile Leu Ser Val Gly
1723          180          185          190
1725 Val Pro Thr Ser Pro Lys Phe His Ile Glu Tyr Asp Pro Pro Pro
1726          195          200          205
1728 Ser Met Asn Ala Pro Pro Thr Gln Asn Pro Glu Ile Ile Ser Thr Ala
1729          210          215          220
1731 Ile Leu Asn Leu Ser Leu Asp Gln Ile His Thr Leu Lys Glu Lys Ser
1732          225          230          235          240
1734 Lys Thr Asp His Glu Pro Asn Val Lys Tyr Ser Arg Met Ala Ile Leu
1735          245          250          255
1737 Ala Ala His Ile Trp Arg Ser Met Cys Lys Ala Arg Gly Leu Ser Asp
1738          260          265          270
1740 Asp Gln Val Ser Lys Leu His Phe Pro Thr Asp Gly Arg Gln Arg Leu
1741          275          280          285
1743 Asn Pro Pro Leu Pro Pro Gly Tyr Phe Gly Asn Val Ile Phe Thr Thr
1744          290          295          300
1746 Ser Leu Thr Ala Ser Ser Gly Asp Ile Leu Ser Glu Pro Leu Asn His
1747          305          310          315          320
1749 Thr Val Glu Arg Ile Gln Lys Ala Leu Lys Arg Met Asp Asp Glu Tyr
1750          325          330          335
1752 Leu Lys Ser Ala Leu Ala Tyr Leu Lys Gln Gln Pro Asp Leu Asn Ala
1753          340          345          350
1755 Leu Arg Lys Gly Gly His Ile Tyr Lys Cys Pro Asn Leu Asn Ile Val
1758          355          360          365
1760 Asn Leu Ala Asn Met Pro Met Tyr Val Ala Asn Phe Gly Trp Gly Gln
1761          370          375          380
1763 Pro Ile Phe Ala Arg Ile Val Asn Thr Tyr Tyr Glu Gly Ile Ala His
1764          385          390          395          400
1766 Ile Tyr Pro Ser Pro Ser Asn Asp Gly Thr Leu Ser Val Val Ile Asn
1767          405          410          415

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Input Set.: A:\EP.txt

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 2327 <213> ORGANISM: Fragaria vesca → <220> insert
 2328 <223> OTHER INFORMATION: Strawberry vesca alcohol acyl transferase
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 2332 1 5 10 15
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 2335 20 25 30
 2337 Gln Leu Thr Pro Pro Ser Tyr Val Pro Met Val Phe Phe Tyr Pro Ile
 2338 35 40 45
 2340 Thr Gly Pro Ala Val Phe Asn Leu Gln Thr Leu Ala Asp Leu Arg His
 2343 50 55 60
 2345 Ala Leu Ser Glu Thr Leu Thr Leu Tyr Tyr Pro Leu Ser Gly Arg Val
 2346 65 70 75 80
 2348 Lys Asn Asn Leu Tyr Ile Asp Asp Phe Glu Glu Gly Val Pro Tyr Leu
 2349 85 90 95
 2351 Glu Ala Arg Val Asn Cys Asp Met Asn Asp Phe Leu Arg Leu Pro Lys
 2352 100 105 110
 2354 Ile Glu Cys Leu Asn Glu Phe Val Pro Ile Lys Pro Phe Ser Met Glu
 2355 115 120 125
 2357 Ala Ile Ser Asp Glu Arg Tyr Pro Leu Leu Gly Val Gln Val Asn Ile
 2358 130 135 140
 2360 Phe Asn Ser Gly Ile Ala Ile Gly Val Ser Val Ser His Lys Leu Ile
 2361 145 150 155 160
 2363 Asp Gly Arg Thr Ser Asp Cys Phe Leu Lys Ser Trp Cys Ala Val Phe
 2364 165 170 175
 2366 Arg Gly Ser Arg Asp Lys Ile Ile His Pro Asn Leu Ser Gln Ala Ala
 2367 180 185 190
 2369 Leu Leu Phe Pro Pro Arg Asp Asp Leu Pro Glu Lys Tyr Ala Arg Gln
 2370 195 200 205
 2372 Met Glu Gly Leu Trp Phe Val Gly Lys Lys Val Ala Thr Arg Arg Phe
 2373 210 215 220
 2375 Val Phe Gly Ala Lys Ala Ile Ser Val Ile Gln Asp Glu Ala Lys Ser
 2376 225 230 235 240
 2378 Glu Ser Val Pro Lys Pro Ser Arg Val Gln Ala Val Thr Ser Phe Leu
 2379 245 250 255
 2381 Trp Lys His Leu Ile Ala Thr Ser Arg Ala Leu Thr Ser Gly Thr Thr
 2382 260 265 270
 2384 Ser Thr Arg Leu Ser Ile Ala Thr Gln Val Val Asn Ile Arg Ser Arg
 2385 275 280 285
 2388 Arg Asn Met Glu Thr Val Trp Asp Asn Ala Ile Gly Asn Leu Ile Trp
 2389 290 295 300
 2391 Phe Ala Pro Ala Ile Leu Glu Leu Ser His Thr Thr Leu Glu Ile Ser
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Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

2394 Asp Leu Lys Leu Cys Asp Leu Val Asn Leu Leu Asn Gly Ser Val Lys
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 2397 Gln Cys Asn Gly Asp Tyr Phe Glu Thr Phe Met Gly Lys Glu Gly Tyr
 2398 340 345 350
 2400 Gly Ser Met Cys Glu Tyr Leu Asp Phe Gln Arg Thr Met Ser Ser Met
 2401 355 360 365
 2403 Glu Pro Ala Pro Glu Ile Tyr Leu Phe Thr Ser Trp Thr Asn Phe Phe
 2404 370 375 380
 2406 Asn Gln Leu Asp Phe Gly Trp Gly Arg Thr Ser Trp Ile Gly Val Ala
 2407 385 390 395 400
 2409 Gly Lys Ile Glu Ser Ala Phe Cys Asn Leu Thr Thr Leu Val Pro Thr
 2410 405 410 415
 2412 Pro Cys Asp Thr Gly Ile Glu Ala Trp Val Asn Leu Glu Glu Glu Lys
 2413 420 425 430
 2415 Met Ala Met Leu Glu Gln Asp Pro Gln Phe Leu Ala Leu Ala Ser Pro
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 2425 <223> OTHER INFORMATION: Banana alcohol acyl transferase
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 2434 20 25 30
 2436 Pro Gly Leu Arg His Met Val Arg Ser Leu His Val Phe Arg Gln Gly
 2437 35 40 45
 2439 Arg Glu Pro Ala Arg Ile Ile Arg Glu Ala Leu Ser Lys Ala Leu Val
 2440 50 55 60
 2442 Lys Tyr Tyr Pro Phe Ala Gly Arg Phe Val Asp Asp Pro Glu Gly Gly
 2443 65 70 75 80
 2445 Gly Glu Val Arg Val Ala Cys Thr Gly Glu Gly Ala Trp Phe Val Glu
 2446 85 90 95
 2448 Ala Lys Ala Asp Cys Ser Leu Glu Asp Val Lys Tyr Leu Asp Leu Pro
 2449 100 105 110
 2451 Leu Met Ile Pro Glu Asp Ala Leu Leu Pro Lys Pro Cys Pro Gly Leu
 2452 115 120 125
 2454 Asn Pro Leu Asp Leu Pro Leu Met Leu Gln Val Thr Glu Phe Val Gly
 2455 130 135 140
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 2460 Leu Gly Val Val Gln Phe Ile Asn Ala Val Ala Glu Ile Ala Arg Gly
 2461 165 170 175
 2463 Leu Pro Lys Pro Thr Val Glu Pro Ala Trp Ser Arg Glu Val Ile Pro
 2464 180 185 190
 2466 Asn Pro Pro Lys Leu Pro Pro Gly Gly Pro Pro Val Phe Pro Ser Phe

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Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

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2467          195          200          205
2469 Lys Leu Leu His Ala Thr Val Asp Leu Ser Pro Asp His Ile Asp His
2470          210          215          220
2472 Val Lys Ser Arg His Leu Glu Leu Thr Gly Gln Arg Cys Ser Thr Phe
2473 225          230          235          240
2475 Asp Val Ala Ile Ala Asn Leu Trp Gln Ser Arg Thr Arg Ala Ile Asn
2478          245          250          255
2480 Leu Asp Pro Gly Val Asp Val His Val Cys Phe Phe Ala Asn Thr Arg
2481          260          265          270
2483 His Leu Leu Arg Gln Val Val Leu Leu Pro Pro Glu Asp Gly Tyr Tyr
2484          275          280          285
2486 Gly Asn Cys Phe Tyr Pro Val Thr Ala Thr Ala Pro Ser Gly Arg Ile
2487          290          295          300
2489 Ala Ser Ala Glu Leu Ile Asp Val Val Ser Ile Ile Arg Asp Ala Lys
2490 305          310          315          320
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2493          325          330          335
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2496          340          345          350
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2499          355          360          365
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2502          370          375          380
2504 Ile Ile Gly Ala Pro Pro Ala Pro Gln Lys Gly Thr Arg Val Met Ala
2505 385          390          395          400
2507 Gln Cys Val Glu Lys Glu His Met Gln Ala Phe Leu Glu Glu Met Lys
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2516 <223> OTHER INFORMATION: Apple alcohol acyl transferase

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2527          35          40          45
2529 Lys Asp Asn Pro Ser Leu Asn Lys Asn Arg Asn Pro Val Lys Ala Ile
2530          50          55          60
2532 Arg Glu Ala Leu Ser Arg Ala Leu Val Tyr Tyr Tyr Pro Leu Ala Gly
2533 65          70          75          80
2535 Arg Leu Arg Glu Gly Pro Asn Arg Lys Leu Val Val Asp Cys Asn Gly
2536          85          90          95
2538 Glu Gly Ile Leu Phe Val Glu Ala Ser Ala Asp Val Thr Leu Glu Gln
2539          100          105          110
2541 Leu Gly Asp Lys Ile Leu Pro Pro Cys Pro Leu Leu Glu Glu Phe Leu

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Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

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2548 145      150      155      160
2550 Leu Asn His Thr Met Cys Asp Ala Ala Gly Leu Leu Leu Phe Leu Thr
2551      165      170      175
2553 Ala Ile Ala Glu Met Ala Arg Gly Ala His Ala Pro Ser Ile Leu Pro
2554      180      185      190
2556 Val Trp Glu Arg Glu Leu Leu Phe Ala Arg Asp Pro Pro Arg Ile Thr
2557      195      200      205
2559 Cys Ala Arg His Glu Tyr Glu Asp Val Ile Gly His Ser Asp Gly Ser
2560      210      215      220
2562 Tyr Ala Ser Ser Asn Gln Ser Asn Met Val Gln Arg Ser Phe Tyr Phe
2563 225      230      235      240
2565 Gly Ala Lys Glu Met Arg Val Leu Arg Lys Gln Ile Pro Pro His Leu
2568      245      250      255
2570 Ile Ser Thr Cys Ser Thr Phe Asp Leu Ile Thr Ala Cys Leu Trp Lys
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2573 Cys Arg Thr Leu Ala Leu Asn Ile Asn Pro Lys Glu Ala Val Arg Val
2574      275      280      285
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2579 Leu Gly Tyr Tyr Gly Asn Ala Phe Ala Phe Pro Ala Ala Ile Ser Lys
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2582 Ala Glu Pro Leu Cys Lys Asn Pro Leu Gly Tyr Ala Leu Glu Leu Val
2583      325      330      335
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2594 Phe Gly Trp Gly Gln Pro Val Phe Ala Gly Pro Val Lys Ala Leu Asp
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2598      405      410      415
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2627 Asn Phe Phe Asp Gly Lys Leu Leu Lys Glu Ala Leu Gly Lys Ala Leu
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2673 Pro Pro Leu Pro Pro Gly Tyr Phe Gly Asn Val Ile Phe Thr Ala Thr
2674 290 295 300
2676 Pro Met Ala Val Ala Gly Asp Leu Gln Ser Lys Pro Ile Trp Tyr Ala
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2679 Ala Gly Gln Ile His Asp Ala Leu Val Arg Met Asp Asn Asp Tyr Leu
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2682 Arg Ser Ala Leu Asp Tyr Leu Glu Leu Gln Pro Asp Leu Ser Ala Leu
2683 340 345 350
2685 Val Arg Gly Ala His Thr Phe Arg Cys Pro Asn Leu Gly Ile Thr Ser
2686 355 360 365
2688 Trp Val Arg Leu Pro Ile His Asp Ala Asp Phe Gly Trp Gly Pro Pro
2689 370 375 380
2691 Thr Phe Met Gly Pro Gly Gly Ile Ala Tyr Glu Gly Leu Ser Phe Val

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Output Set: N:\CRF3\05152002\I857518.raw

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 2695 405 410 415
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 2698 420 425 430
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 2704 <212> TYPE: PRT
 2705 <213> ORGANISM: Citrus limon → <2207 insert
 2706 <223> OTHER INFORMATION: Lemon acyl transferase
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 2713 20 25 30
 2715 Thr Pro Asn Val Tyr Phe Ser Ile Ile Leu Leu Tyr Ser Lys Ala Gly
 2716 35 40 45
 2718 Glu Ser Thr Ala Lys Thr Ser Asp His Leu Lys Glu Ser Leu Ser Asn
 2719 50 55 60
 2721 Thr Leu Thr His Tyr Tyr Pro Leu Ala Gly Gln Leu Lys Tyr Asp Gln
 2722 65 70 75 80
 2724 Leu Ile Val Asp Cys Asn Asp Gln Gly Val Pro Phe Ile Glu Ala His
 2725 85 90 95
 2727 Val Thr Asn Asp Met Arg Gln Leu Leu Lys Ile Pro Asn Ile Asp Val
 2728 100 105 110
 2730 Leu Glu Gln Leu Leu Pro Phe Lys Pro His Glu Gly Phe Asp Ser Asp
 2731 115 120 125
 2733 Arg Ser Asn Leu Thr Val Gln Val Asn Tyr Phe Gly Cys Glu Gly Met
 2734 130 135 140
 2736 Ala Ile Gly Leu Cys Phe Arg His Lys Val Ile Asp Ala Thr Thr Ala
 2737 145 150 155 160
 2739 Ala Phe Phe Val Lys Asn Trp Gly Val Ile Ala Arg Gly Ala Gly Glu
 2740 165 170 175
 2742 Ile Lys Asp Val Ile Ile Asp His Ala Ser Leu Phe Pro Ala Arg Asp
 2743 180 185 190
 2745 Leu Ser Cys Leu Thr Lys Ser Val Asp Glu Glu Phe Leu Lys Pro Glu
 2748 195 200 205
 2750 Ser Glu Thr Lys Arg Phe Val Phe Asp Gly Ala Thr Ile Ala Ser Leu
 2751 210 215 220
 2753 Gln Glu Thr Phe Ala Ser Phe Glu Arg Arg Pro Thr Arg Phe Glu Val
 2754 225 230 235 240
 2756 Val Ser Ala Val Ile Leu Gly Ala Leu Ile Thr Ala Thr Arg Glu Ser
 2757 245 250 255
 2759 Asp Asp Glu Ser Asn Val Pro Glu Arg Leu Asp Thr Ile Ile Ser Val
 2760 260 265 270
 2762 Asn Leu Arg Gln Arg Met Asn Pro Pro Phe Pro Glu His Cys Met Gly
 2763 275 280 285
 2765 Asn Ile Ile Ser Gly Gly Leu Val Tyr Trp Pro Leu Glu Lys Lys Val
 2766 290 295 300

RAW SEQUENCE LISTING

DATE: 05/15/2002

PATENT APPLICATION: US/09/857,518

TIME: 16:13:41

Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

```

2768 Asp Tyr Gly Cys Leu Ala Lys Glu Ile His Glu Ser Ile Lys Lys Val
2769 305                      310                      315                      320
2771 Asp Asp Gln Phe Ala Arg Lys Phe Tyr Gly Asp Ala Glu Phe Leu Asn
2772                      325                      330                      335
2774 Leu Pro Arg Leu Ala Gly Ala Glu Asp Val Lys Lys Arg Glu Phe Trp
2775                      340                      345                      350
2777 Val Thr Ser Trp Cys Lys Thr Pro Leu Tyr Glu Ala Asp Phe Gly Trp
2778                      355                      360                      365
2780 Gly Asn Pro Lys Trp Ala Gly Asn Ser Met Arg Leu Asn Gln Ile Thr
2781                      370                      375                      380
2783 Val Phe Phe Asp Ser Ser Asp Gly Glu Gly Val Glu Ala Trp Val Gly
2784 385                      390                      395                      400
2786 Leu Pro Arg Lys Asp Met Ala Arg Phe Glu Lys Asp Ser Gly Ile Leu
2787                      405                      410                      415
2789 Ala Tyr Thr Ser Pro Asn Pro Ser Ile Phe
2790                      420                      425

```

2793 <210> SEQ ID NO: 24

2794 <211> LENGTH: 491

2795 <212> TYPE: PRT

2796 <213> ORGANISM: Citrus limon

2257

2797 <223> OTHER INFORMATION: Lemon acyl transferase

✶-> 2799 <400> SEQUENCE: 24

```

2800 Met Ala Ala Ile Glu Asn Arg Val Thr Leu Lys Lys His Glu Val Thr
2801 1                      5                      10                      15
2803 Lys Val Thr Pro Phe Val Asn Pro Asn Ser Lys Thr Thr Ser Phe Thr
2804                      20                      25                      30
2806 Leu Asp Leu Thr Tyr Phe Asp Phe Phe Trp Phe Lys Asn Pro Pro Val
2807                      35                      40                      45
2809 Glu Arg Leu Phe Phe Tyr Glu Met Thr Asp Leu Thr Trp Asp Leu Phe
2810                      50                      55                      60
2812 Asn Ser Glu Ile Leu Pro Lys Leu Lys His Ser Leu Ser Phe Thr Leu
2813 65                      70                      75                      80
2815 Leu His Tyr Leu Pro Leu Ala Gly His Ile Met Trp Pro Leu Asp Ala
2816                      85                      90                      95
2818 Ala Lys Pro Ala Val Tyr Tyr Phe Pro Asp Gln Asn Asp Gly Val Ser
2819                      100                     105                     110
2821 Phe Ala Val Ala Glu Trp Ser Ser Glu Cys His Ala Gly Phe His His
2822                      115                     120                     125
2824 Leu Ser Gly Asn Gly Ile Arg Gln Ala Val Glu Phe His Pro Leu Val
2825                      130                     135                     140
2827 Pro Gln Leu Ser Leu Thr Asp Asp Lys Ala Glu Val Ile Ala Ile Gln
2828 145                     150                     155                     160
2830 Ile Thr Leu Phe Pro Asn Gln Gly Phe Ser Ile Gly Val Ser Ser His
2831                      165                     170                     175
2833 His Ala Ile Leu Asp Gly Lys Thr Ser Thr Leu Phe Leu Lys Ser Trp
2834                      180                     185                     190
2838 Ala Tyr Leu Cys Lys Gln Leu Gln Leu Cys His His Pro Cys Leu Ser
2839                      195                     200                     205
2841 Pro Glu Leu Thr Pro Leu Leu Asp Arg Thr Val Ile Lys Asp Pro Thr

```

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TIME: 16:13:41

Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

```

2842      210      215      220
2844 Gly Gln Asp Met Leu Gln Leu Asn Lys Trp Val Val Gly Ser Asp Asn
2845 225      230      235      240
2847 Ser Asp Pro Gln Lys Ile Arg Ser Leu Lys Val Leu Pro Phe Leu Asp
2848      245      250      255
2850 Ser Glu Ser Leu Asn Lys Leu Val Arg Ala Thr Phe Glu Leu Thr Arg
2851      260      265      270
2853 Glu Asp Ile Thr Lys Leu Arg His Lys Val Asn His Gln Leu Ser Lys
2854      275      280      285
2856 Ser Ser Lys Ser Lys Gln Val Arg Leu Ser Thr Phe Val Leu Thr Leu
2857      290      295      300
2859 Ala Tyr Val Phe Val Cys Met Ala Lys Ala Lys Leu Ala Lys Ala Lys
2860 305      310      315      320
2862 Thr Glu Ala Glu Ala Ala Ala Gly Asn Asp Glu Ile Lys Asn Ile Ile
2863      325      330      335
2865 Val Gly Phe Thr Ala Asp Tyr Arg Ser Arg Leu Asp Pro Pro Ile Pro
2866      340      345      350
2868 Leu Asn Tyr Phe Gly Asn Cys Asn Gly Arg His Cys Glu Thr Ala Lys
2869      355      360      365
2871 Ala Ser Asp Phe Val Gln Glu Asn Gly Val Ala Phe Val Ala Glu Met
2872      370      375      380
2874 Leu Ser Asp Met Val Lys Gly Ile Asp Ala Asp Ala Ile Glu Ala Asn
2875 385      390      395      400
2877 Asp Asp Lys Val Ser Glu Ile Leu Glu Ile Leu Lys Glu Gly Ala Met
2878      405      410      415
2880 Ile Phe Ser Val Ala Gly Ser Thr Gln Phe Asp Val Tyr Gly Ser Asp
2883      420      425      430
2885 Phe Gly Trp Gly Arg Pro Lys Lys Val Glu Ile Val Ser Ile Asp Arg
2886      435      440      445
2888 Thr Gln Ala Ile Ser Leu Ala Glu Arg Arg Asp Gly Gly Gly Gly Val
2889      450      455      460
2891 Glu Val Gly Val Val Leu Glu Lys Gln Gln Met Glu Val Phe Glu Ser
2892 465      470      475      480
2894 Val Phe Ala Asp Gly Leu Lys Asn Asp Leu Val
2895      485      490

```

2897 <210> SEQ ID NO: 25

2898 <211> LENGTH: 447

2899 <212> TYPE: PRT

2900 <213> ORGANISM: Citrus limon

2900 2207

2901 <223> OTHER INFORMATION: Lemon acyl transferase

6K-> 2903 <400> SEQUENCE: 25

```

2904 Met Ala Ala Ser Ser Leu His Gly Lys Glu Ala Thr Val Ile Tyr Pro
2905 1      5      10      15
2907 Ser Glu Pro Thr Pro Ser Thr Val Leu Ser Leu Ser Ala Leu Asp Ser
2908      20      25      30
2910 Gln Leu Phe Leu Arg Phe Thr Ile Glu Tyr Leu Leu Val Tyr Arg Pro
2911      35      40      45
2913 Arg Pro Gly Leu Asp Pro Leu Ala Thr Val Ala Arg Val Lys Ser Ala
2914      50      55      60

```

RAW SEQUENCE LISTING

DATE: 05/15/2002

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TIME: 16:13:41

Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

```

2916 Leu Ala Lys Ala Leu Val Pro Tyr Tyr Pro Leu Ala Gly Arg Val Arg
2917 65 70 75 80
2919 Ala Lys Gln Asp Gly Ser Gly Leu Leu Glu Val Val Cys Leu Gly Gln
2920 85 90 95
2922 Gly Ala Val Phe Ile Glu Ala Val Asp Arg Glu Ser Thr Ile Thr Asp
2923 100 105 110
2925 Phe Glu Ser Ala Pro Arg Tyr Val Thr Gln Trp Arg Lys Leu Leu Ser
2928 115 120 125
2930 Leu Tyr Val Ala Asp Val Leu Lys Gly Ala Pro Pro Leu Val Val Gln
2931 130 135 140
2933 Leu Thr Trp Leu Arg Asp Gly Ala Ala Ala Leu Gly Ile Gly Phe Asn
2934 145 150 155 160
2936 His Cys Val Cys Asp Gly Ile Gly Ser Ala Glu Phe Leu Asn Leu Phe
2937 165 170 175
2939 Thr Glu Leu Cys Thr Ser Arg His Asn Glu Leu Gly Gly Gly His Ser
2940 180 185 190
2942 Leu Pro Lys Pro Val Trp Asp Arg His Leu Met Asn Ser Ser Ser Ser
2943 195 200 205
2945 Arg Gln Gln His Ala Asp Thr Arg Ala Ser Ser Val Ser His Leu Glu
2946 210 215 220
2948 Phe Asn Arg Val Ala Asp Leu Cys Gly Phe Val Ser Arg Phe Ser Asn
2949 225 230 235 240
2951 Glu Arg Leu Val Pro Thr Ser Ile Thr Phe Asp Lys Arg Arg Leu Asn
2952 245 250 255
2954 Glu Leu Arg Lys Leu Ala Leu Ser Thr Ser Arg Pro Ser Glu Leu Ala
2955 260 265 270
2957 Tyr Thr Ser Phe Glu Val Leu Ser Ala His Val Trp Arg Ser Trp Ala
2958 275 280 285
2960 Arg Ser Leu Asn Leu Pro Ser Asn Gln Ile Leu Lys Leu Leu Phe Ser
2961 290 295 300
2963 Ile Asn Val Arg Asn Arg Val Lys Pro Ser Leu Pro Ser Gly Tyr Tyr
2964 305 310 315 320
2966 Gly Asp Ala Phe Val Leu Gly Cys Ala Gln Thr Arg Val Lys Asp Leu
2967 325 330 335
2969 Thr Glu Lys Asp Leu Gly His Ala Ala Met Leu Val Lys Lys Ala Lys
2970 340 345 350
2973 Glu Arg Val Asp Ser Glu Tyr Val Lys Ser Val Ile Asp Ser Val Ser
2974 355 360 365
2976 His Thr Arg Ala Cys Pro Asp Ser Val Gly Val Leu Ile Val Ser Gln
2977 370 375 380
2979 Trp Ser Arg Leu Gly Leu Glu Arg Val Asp Phe Gly Met Gly Arg Pro
2980 385 390 395 400
2982 Thr Gln Val Gly Pro Ile Cys Cys Asp Arg Tyr Cys Leu Phe Leu Pro
2983 405 410 415
2985 Val Phe Asn Gln Thr Asp Ala Val Lys Val Met Val Ala Val Pro Thr
2986 420 425 430
2988 Ser Ala Val Asp Lys Tyr Glu His Leu Ala Lys Gly Leu Cys Trp
2989 435 440 445
2991 <210> SEQ ID NO: 26

```

RAW SEQUENCE LISTING

DATE: 05/15/2002

PATENT APPLICATION: US/09/857,518

TIME: 16:13:41

Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

2992 <211> LENGTH: 456

2993 <212> TYPE: PRT

2994 <213> ORGANISM: Cucumis melo

2995 <223> OTHER INFORMATION: Honey dew melon alcohol acyl transferase

OK> 2997 <400> SEQUENCE: 26

2998 Met Asp Phe Ser Phe His Val Arg Lys Cys Gln Pro Glu Leu Ile Ala
 2999 1 5 10 15
 3001 Pro Ala Asn Pro Thr Pro Tyr Glu Phe Lys Gln Leu Ser Asp Val Asp
 3002 20 25 30
 3004 Asp Gln Gln Ser Leu Arg Leu Gln Leu Pro Phe Val Asn Ile Tyr Pro
 3005 35 40 45
 3007 His Asn Pro Ser Leu Glu Gly Arg Asp Pro Val Lys Val Ile Lys Glu
 3008 50 55 60
 3010 Ala Ile Gly Lys Ala Leu Val Phe Tyr Tyr Pro Leu Ala Gly Arg Leu
 3011 65 70 75 80
 3013 Arg Glu Gly Pro Gly Arg Lys Leu Phe Val Glu Cys Thr Gly Glu Gly
 3014 85 90 95
 3018 Ile Leu Phe Ile Glu Ala Asp Ala Asp Val Ser Leu Glu Glu Phe Trp
 3019 100 105 110
 3021 Asp Thr Leu Pro Tyr Ser Leu Ser Ser Met Gln Asn Asn Ile Ile His
 3022 115 120 125
 3024 Asn Ala Leu Asn Ser Asp Glu Val Leu Asn Ser Pro Leu Leu Leu Ile
 3025 130 135 140
 3027 Gln Val Thr Arg Leu Lys Cys Gly Gly Phe Ile Phe Gly Leu Cys Phe
 3028 145 150 155 160
 3030 Asn His Thr Met Ala Asp Gly Phe Gly Ile Val Gln Phe Met Lys Ala
 3031 165 170 175
 3033 Thr Ala Glu Ile Ala Arg Gly Ala Phe Ala Pro Ser Ile Leu Pro Val
 3034 180 185 190
 3036 Trp Gln Arg Ala Leu Leu Thr Ala Arg Asp Pro Pro Arg Ile Thr Phe
 3037 195 200 205
 3039 Arg His Tyr Glu Tyr Asp Gln Val Val Asp Met Lys Ser Gly Leu Ile
 3040 210 215 220
 3042 Pro Val Asn Ser Lys Ile Asp Gln Leu Phe Phe Phe Ser Gln Leu Gln
 3043 225 230 235 240
 3045 Ile Ser Thr Leu Arg Gln Thr Leu Pro Ala His Leu His Asp Cys Pro
 3046 245 250 255
 3048 Ser Phe Glu Val Leu Thr Ala Tyr Val Trp Arg Leu Arg Thr Ile Ala
 3049 260 265 270
 3051 Leu Gln Phe Lys Pro Glu Glu Glu Val Arg Phe Leu Cys Val Met Asn
 3052 275 280 285
 3054 Leu Arg Ser Lys Ile Asp Ile Pro Leu Gly Tyr Tyr Gly Asn Ala Val
 3055 290 295 300
 3057 Val Val Pro Ala Val Ile Thr Thr Ala Ala Lys Leu Cys Gly Asn Pro
 3058 305 310 315 320
 3060 Leu Gly Tyr Ala Val Asp Leu Ile Arg Lys Ala Lys Ala Lys Ala Thr
 3063 325 330 335
 3065 Met Glu Tyr Ile Lys Ser Thr Val Asp Leu Met Val Ile Lys Gly Arg
 3066 340 345 350

RAW SEQUENCE LISTING

DATE: 05/15/2002

PATENT APPLICATION: US/09/857,518

TIME: 16:13:41

Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

```

3068 Pro Tyr Phe Thr Val Val Gly Ser Phe Met Met Ser Asp Leu Thr Arg
3069           355           360           365
3071 Ile Gly Val Glu Asn Val Asp Phe Gly Trp Gly Lys Ala Ile Phe Gly
3072           370           375           380
3074 Gly Pro Thr Thr Thr Gly Ala Arg Ile Thr Arg Gly Leu Val Ser Phe
3075 385           390           395           400
3077 Cys Val Pro Phe Met Asn Arg Asn Gly Glu Lys Gly Thr Ala Leu Ser
3078           405           410           415
3080 Leu Cys Leu Pro Pro Pro Ala Met Glu Arg Phe Arg Ala Asn Val His
3081           420           425           430
3083 Ala Ser Leu Gln Val Lys Gln Val Val Asp Ala Val Asp Ser His Met
3084           435           440           445
3086 Gln Thr Ile Gln Ser Ala Ser Lys
3087           450           455

```

3089 <210> SEQ ID NO: 27

3090 <211> LENGTH: 397

3091 <212> TYPE: PRT

3092 <213> ORGANISM: Fragaria x ananassa

3093 <223> OTHER INFORMATION: Strawberry aminotransferase

EOL

3095 <400> SEQUENCE: 27

```

3096 Met Ala Lys Leu Gln Ala Gly Tyr Leu Phe Pro Glu Ile Ala Arg Arg
3097 1           5           10           15
3099 Arg Asn Ala His Leu Gln Lys His Pro Asp Ala Lys Ile Ile Pro Leu
3100           20           25           30
3102 Gly Ile Gly Asp Thr Thr Glu Pro Ile Pro Glu Tyr Ile Thr Ser Ala
3103           35           40           45
3105 Met Ala Lys Arg Ala Leu Ala Met Ser Thr Leu Glu Gly Tyr Ser Gly
3108           50           55           60
3110 Tyr Gly Pro Glu Gln Gly Glu Lys Pro Leu Arg Val Ala Ile Ala Lys
3111 65           70           75           80
3113 Thr Phe Tyr Gly Asp Leu Gly Ile Glu Glu Asp Asp Ile Phe Val Ser
3114           85           90           95
3116 Asp Gly Ala Lys Cys Asp Ile Ser Arg Leu Gln Val Leu Phe Gly Ala
3117           100          105          110
3119 Asp Lys Thr Ile Ala Val Gln Asp Pro Ser Tyr Pro Ala Tyr Val Asp
3120           115          120          125
3122 Ser Ser Val Ile Met Gly Gln Thr Gly Gln Tyr Gln Lys Ser Val Gln
3123           130          135          140
3125 Lys Phe Gly Asn Ile Glu Tyr Met Arg Cys Thr Pro Asp Asn Gly Phe
3126 145          150          155          160
3128 Phe Pro Asp Leu Ser Ser Thr Lys Arg Thr Asp Ile Ile Phe Phe Cys
3129           165          170          175
3131 Ser Pro Asn Asn Pro Thr Gly Ser Ala Ala Thr Arg Glu Gln Leu Thr
3132           180          185          190
3134 Gln Leu Val Lys Phe Ala Lys Asp Asn Gly Ser Ile Ile Val Tyr Asp
3135           195          200          205
3137 Ser Ala Tyr Ala Met Tyr Met Ser Asp Asp Asn Pro Arg Ser Ile Phe
3138           210          215          220
3140 Glu Ile Pro Gly Ala Lys Asp Val Ala Leu Glu Thr Ser Ser Phe Ser

```

> (2207 insert

RAW SEQUENCE LISTING

DATE: 05/15/2002

PATENT APPLICATION: US/09/857,518

TIME: 16:13:41

Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

```

3141 225                230                235                240
3143 Lys Tyr Ala Gly Phe Thr Gly Val Arg Leu Gly Trp Thr Val Val Pro
3144                245                250                255
3146 Lys Gln Leu Gln Tyr Ser Asp Gly Phe Gln Val Ala Lys Asp Phe Asn
3147                260                265                270
3149 Arg Ile Val Cys Thr Cys Phe Asn Gly Ala Ser Thr Ile Ile Gln Ala
3150                275                280                285
3153 Gly Gly Leu Ala Cys Leu Gln Pro Lys Gly Val Lys Ala Met His Gly
3154                290                295                300
3156 Val Ile Asn Phe Tyr Lys Glu Asn Thr Lys Ile Ile Met Glu Thr Phe
3157 305                310                315                320
3159 Asn Ser Leu Gly Phe Asn Val Tyr Gly Gly Thr Asn Ala Pro Tyr Val
3160                325                330                335
3162 Trp Val His Phe Pro Gly Gln Ser Ser Trp Asp Val Phe Ala Glu Ile
3163                340                345                350
3165 Leu Glu Lys Thr His Val Val Thr Thr Pro Gly Ser Gly Phe Gly Pro
3166                355                360                365
3168 Gly Gly Glu Gly Phe Ile Arg Val Ser Ala Phe Gly His Arg Lys Asn
3169                370                375                380
3171 Ile Leu Glu Ala Cys Lys Arg Phe Lys Gln Leu Tyr Lys
3172 385                390                395
3174 <210> SEQ ID NO: 28
3175 <211> LENGTH: 458
3176 <212> TYPE: PRT
3177 <213> ORGANISM: Fragaria x ananassa
3178 <223> OTHER INFORMATION: Strawberry thiolase
3180 <400> SEQUENCE: 28
3181 Met Glu Lys Ala Ile Asn Arg Gln Lys Val Leu Leu Asp His Leu Arg
3182 1 5 10 15
3184 Pro Ser Ser Ser Ser Asp Asp Ser Ser Leu Ser Ala Ser Val Cys Ala
3185 20 25 30
3187 Ala Gly Asp Ser Ala Ala Tyr Ala Arg Asn His Val Phe Gly Asp Asp
3188 35 40 45
3190 Val Val Ile Val Ala Ala Phe Arg Thr Pro Leu Cys Lys Ala Lys Arg
3191 50 55 60
3193 Gly Gly Phe Lys Tyr Thr Tyr Ala Asp Asp Leu Leu Ala Pro Val Leu
3194 65 70 75 80
3198 Lys Ala Val Val Glu Lys Thr Asn Leu Asn Pro Lys Glu Val Gly Asp
3199 85 90 95
3201 Ile Val Val Gly Thr Val Leu Ala Pro Gly Ser Gln Arg Ala Ser Glu
3202 100 105 110
3204 Cys Arg Met Ala Ala Phe Tyr Ala Gly Phe Pro Glu Thr Val Pro Val
3205 115 120 125
3207 Arg Thr Val Asn Arg Gln Cys Ser Ser Gly Leu Gln Ala Val Ala Asp
3208 130 135 140
3210 Val Ala Ala Ala Ile Arg Ala Gly Phe Tyr Asp Ile Gly Ile Gly Ala
3211 145 150 155 160
3213 Gly Leu Glu Ser Met Thr Ala Asn Pro Met Ala Trp Glu Gly Asp Val
3214 165 170 175

```


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DATE: 05/15/2002

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TIME: 16:13:41

Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

```

3216 Asn Pro Lys Val Lys Ile Phe Glu Gln Ala Gln Asn Cys Leu Leu Pro
3217          180          185          190
3219 Met Gly Val Thr Ser Glu Asn Val Ala His Arg Phe Gly Val Ser Arg
3220          195          200          205
3222 Gln Glu Gln Asp Gln Ala Ala Val Asp Ser His Arg Lys Ala Ala Ala
3223          210          215          220
3225 Ala Ala Ala Ala Gly Arg Phe Lys Asp Glu Ile Ile Pro Val Ala Thr
3226 225          230          235          240
3228 Lys Ile Val Asp Pro Lys Ser Gly Asp Glu Lys Pro Val Thr Ile Ser
3229          245          250          255
3231 Val Asp Asp Gly Ile Arg Asn Thr Thr Leu Ala Asp Leu Ala Lys Leu
3232          260          265          270
3234 Lys Pro Val Phe Lys Lys Asp Gly Thr Thr Thr Ala Gly Asn Ser Ser
3235          275          280          285
3237 Gln Val Ser Asp Gly Ala Gly Ala Val Leu Leu Met Lys Arg Ser Val
3238          290          295          300
3240 Ala Asp Gln Lys Gly Leu Pro Ile Leu Gly Val Phe Arg Asn Phe Val
3243 305          310          315          320
3245 Ala Val Gly Val Asp Pro Ala Ile Met Gly Val Gly Pro Ala Ala Ala
3246          325          330          335
3248 Ile Pro Val Ala Val Lys Ala Ala Gly Leu Glu Leu Asp Asp Ile Asp
3249          340          345          350
3251 Leu Phe Glu Ile Asn Glu Ala Phe Ala Ser Gln Phe Val Tyr Cys Arg
3252          355          360          365
3254 Asn Lys Leu Gly Leu Asp Pro Glu Lys Ile Asn Val Asn Gly Gly Ala
3255          370          375          380
3257 Met Ala Ile Gly His Pro Leu Gly Ala Thr Gly Ala Arg Cys Val Ala
3258 385          390          395          400
3260 Thr Leu Leu His Glu Met Lys Arg Arg Gly Lys Asp Cys Arg Tyr Gly
3261          405          410          415
3263 Val Ile Ser Met Cys Ile Gly Thr Gly Met Gly Ala Ala Ala Val Phe
3264          420          425          430
3266 Glu Arg Gly Asp Arg Thr Asp Glu Leu Cys Asn Ala Arg Lys Val Glu
3267          435          440          445
3269 Ser Leu Asn Phe Leu Ser Lys Asp Val Arg
3270          450          455
3272 <210> SEQ ID NO: 29
3273 <211> LENGTH: 605
3274 <212> TYPE: PRT
3275 <213> ORGANISM: Fragaria x ananassa → 2207 insert
3276 <223> OTHER INFORMATION: Strawberry pyruvate decarboxylase
3278 <400> SEQUENCE: 29
3279 Met Asp Thr Lys Ile Gly Ser Ile Asp Val Cys Lys Thr Glu Asn His
3280 1          5          10          15
3282 Asp Val Gly Cys Leu Pro Asn Ser Ala Thr Ser Thr Val Gln Asn Ser
3283          20          25          30
3285 Val Pro Ser Thr Ser Leu Ser Ser Ala Asp Ala Thr Leu Gly Arg His
3288          35          40          45
3290 Leu Ala Arg Arg Leu Val Gln Ile Gly Val Thr Asp Val Phe Thr Val

```

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DATE: 05/15/2002

PATENT APPLICATION: US/09/857,518

TIME: 16:13:41

Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

```

3291      50      55      60
3293 Pro Gly Asp Phe Asn Leu Thr Leu Leu Asp His Leu Ile Ala Glu Pro
3294 65      70      75      80
3296 Gly Leu Thr Asn Ile Gly Cys Cys Asn Glu Leu Asn Ala Gly Tyr Ala
3297      85      90      95
3299 Ala Asp Gly Tyr Ala Arg Ser Arg Gly Val Gly Ala Cys Val Val Thr
3300      100      105      110
3302 Phe Thr Val Gly Gly Leu Ser Val Leu Asn Ala Ile Ala Gly Ala Tyr
3303      115      120      125
3305 Ser Glu Asn Leu Pro Val Ile Cys Ile Val Gly Gly Pro Asn Ser Asn
3306      130      135      140
3308 Asp Tyr Gly Thr Asn Arg Ile Leu His His Thr Ile Gly Leu Pro Asp
3309 145      150      155      160
3311 Phe Ser Gln Glu Leu Arg Cys Phe Gln Thr Val Thr Cys Phe Gln Ala
3312      165      170      175
3314 Val Val Asn Asn Leu Glu Asp Ala His Glu Met Ile Asp Thr Ala Ile
3315      180      185      190
3317 Ser Thr Ala Leu Lys Glu Ser Lys Pro Val Tyr Ile Ser Ile Gly Cys
3318      195      200      205
3320 Asn Leu Ala Gly Ile Pro His Pro Thr Phe Ser Arg Glu Pro Val Pro
3321      210      215      220
3323 Phe Ser Leu Ser Pro Lys Leu Ser Asn Lys Trp Gly Leu Glu Ala Ala
3324 225      230      235      240
3326 Val Glu Ala Ala Ala Glu Phe Leu Asn Lys Ala Val Lys Pro Val Met
3327      245      250      255
3329 Val Gly Gly Pro Lys Leu Arg Ser Ala His Ala Gly Asp Ala Phe Val
3330      260      265      270
3333 Glu Leu Ala Asp Ala Ser Gly Phe Ala Leu Ala Val Met Pro Ser Ala
3334      275      280      285
3336 Lys Gly Gln Val Pro Glu His His Pro His Phe Ile Gly Thr Tyr Trp
3337      290      295      300
3339 Gly Ala Val Ser Thr Ala Phe Cys Ala Glu Ile Val Glu Ser Ala Asp
3340 305      310      315      320
3342 Ala Tyr Leu Phe Ala Gly Pro Ile Phe Asn Asp Tyr Ser Ser Val Gly
3343      325      330      335
3345 Tyr Ser Leu Leu Leu Lys Lys Glu Lys Ala Ile Ile Val Gln Pro Asp
3346      340      345      350
3348 Arg Val Thr Ile Gly Asn Gly Pro Thr Phe Gly Cys Val Leu Met Lys
3349      355      360      365
3351 Asp Phe Leu Leu Gly Leu Ala Lys Lys Leu Lys His Asn Asn Thr Ala
3352      370      375      380
3354 His Glu Asn Tyr Arg Arg Ile Phe Val Pro Asp Gly His Pro Leu Lys
3355 385      390      395      400
3357 Ala Ala Pro Lys Glu Pro Leu Arg Val Asn Val Leu Phe Lys His Ile
3358      405      410      415
3360 Gln Asn Met Leu Ser Ala Glu Thr Ala Val Ile Ala Glu Thr Gly Asp
3361      420      425      430
3363 Ser Trp Phe Asn Cys Gln Lys Leu Lys Leu Pro Pro Gly Cys Gly Tyr
3364      435      440      445

```

RAW SEQUENCE LISTING

DATE: 05/15/2002

PATENT APPLICATION: US/09/857,518

TIME: 16:13:41

Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

```

3366 Glu Phe Gln Met Gln Tyr Gly Ser Ile Gly Trp Ser Val Gly Ala Thr
3367      450      455      460
3369 Leu Gly Tyr Ala Gln Ala Val Pro Glu Lys Arg Val Ile Ser Phe Ile
3370 465      470      475      480
3372 Gly Asp Gly Ser Phe Gln Val Thr Ala Gln Asp Val Ser Thr Met Ile
3373      485      490      495
3375 Arg Asn Gly Gln Arg Thr Ile Ile Phe Leu Ile Asn Asn Gly Gly Tyr
3378      500      505      510
3380 Thr Ile Glu Val Glu Ile His Asp Gly Pro Tyr Asn Val Ile Lys Asn
3381      515      520      525
3383 Trp Asn Tyr Thr Gly Leu Val Asp Ala Ile His Asn Gly Glu Gly Lys
3384      530      535      540
3386 Cys Trp Thr Thr Lys Val Arg Cys Glu Glu Glu Leu Ile Glu Ala Ile
3387 545      550      555      560
3389 Glu Thr Ala Asn Gly Pro Lys Lys Asp Ser Phe Cys Phe Ile Glu Val
3390      565      570      575
3392 Ile Val His Lys Asp Asp Thr Ser Lys Glu Leu Leu Glu Trp Gly Ser
3393      580      585      590
3395 Arg Val Ser Ala Ala Asn Ser Arg Pro Pro Asn Pro Gln
3396      595      600      605

```

3403 <210> SEQ ID NO: 30

3404 <211> LENGTH: 333

3405 <212> TYPE: PRT

3406 <213> ORGANISM: Fragaria x ananassa

3407 <223> OTHER INFORMATION: Strawberry alcohol dehydrogenase

3409 <400> SEQUENCE: 30

```

3410 Met Val Met Ser Ile Glu Gln Glu His Pro Lys Lys Ala Ser Gly Trp
3411 1      5      10      15
3413 Ala Ala Arg Asp Ser Ser Gly Val Leu Ser Pro Phe Ser Phe Ser Arg
3414      20      25      30
3416 Arg Glu Thr Gly Glu Lys Asp Val Thr Phe Lys Val Met Tyr Cys Gly
3417      35      40      45
3419 Ile Cys His Ser Asp Leu His Met Val Lys Asn Glu Trp Gly Phe Ser
3420      50      55      60
3423 Thr Tyr Pro Leu Val Pro Gly His Glu Ile Val Gly Glu Val Thr Glu
3424 65      70      75      80
3426 Val Gly Ser Asn Val Gln Lys Phe Lys Val Gly Asp Arg Val Gly Val
3427      85      90      95
3429 Gly Cys Ile Val Gly Ser Cys Arg Ser Cys Glu Asn Cys Thr Asp His
3430      100      105      110
3432 Leu Glu Asn Tyr Cys Pro Lys Gln Ile Leu Thr Tyr Gly Ala Lys Tyr
3433      115      120      125
3435 Tyr Asp Gly Thr Thr Thr Tyr Gly Gly Tyr Ser Asp Ile Met Val Ala
3436      130      135      140
3438 Asp Glu His Phe Ile Val Arg Ile Pro Asp Asn Leu Pro Leu Asp Gly
3439 145      150      155      160
3441 Ala Ala Pro Leu Leu Cys Ala Gly Ile Thr Thr Tyr Ser Pro Leu Arg
3442      165      170      175
3444 Tyr Phe Gly Leu Asp Lys Pro Gly Met His Val Gly Val Val Gly Leu

```

RAW SEQUENCE LISTING

DATE: 05/15/2002

PATENT APPLICATION: US/09/857,518

TIME: 16:13:41

Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

```

3445          180          185          190
3447 Gly Gly Leu Gly His Val Ala Val Lys Phe Ala Lys Ala Met Gly Val
3448          195          200          205
3450 Lys Val Thr Val Ile Ser Thr Ser Pro Lys Lys Glu Glu Ala Arg
3451          210          215          220
3453 Lys His Leu Gly Ala Asp Ser Phe Leu Val Ser Arg Asp Gln Asp Gln
3454 225          230          235          240
3456 Met Gln Ala Ala Ile Gly Thr Met Asp Gly Ile Ile Asp Thr Val Ser
3457          245          250          255
3459 Ala Gln His Pro Leu Leu Pro Leu Ile Gly Leu Leu Lys Ser His Gly
3460          260          265          270
3462 Lys Leu Val Met Val Gly Ala Pro Glu Lys Pro Leu Glu Leu Pro Val
3463          275          280          285
3465 Phe Pro Leu Leu Met Gly Arg Lys Met Val Ala Gly Ser Gly Ile Gly
3468          290          295          300
3470 Gly Met Lys Glu Thr Gln Glu Met Ile Asp Phe Ala Ala Lys His Asn
3471 305          310          315          320
3473 Ile Thr Ala Asp Ile Glu Val Ile Pro Ile Asp Tyr Leu
3474          325          330
3476 <210> SEQ ID NO: 31
3477 <211> LENGTH: 326
3478 <212> TYPE: PRT
3479 <213> ORGANISM: Fragaria x ananassa
3480 <223> OTHER INFORMATION: Strawberry alcohol dehydrogenase
3482 <400> SEQUENCE: 31
3483 Glu Thr Gly Ala Thr Asp Val Arg Phe Lys Val Leu Tyr Cys Gly Val
3484 1          5          10          15
3486 Cys His Ser Asp Ile His Met Ala Lys Asn Asp Trp Gly Thr Ser Thr
3487          20          25          30
3489 Tyr Pro Ile Val Pro Gly His Glu Leu Val Gly Val Val Thr Glu Val
3490          35          40          45
3492 Gly Cys Lys Val Lys Lys Phe Lys Ser Trp Arg Gln Gly Arg Cys Trp
3493          50          55          60
3495 Leu His Gly Arg Leu Arg Pro Thr Cys Glu Asn Cys Ile His His Leu
3496 65          70          75          80
3498 Glu Asn Tyr Cys Pro Asn Leu Ile Gln Thr Tyr Gly Ser Lys Tyr Tyr
3499          85          90          95
3501 Asp Gly Thr Met Thr Tyr Gly Gly Tyr Ser Asn Asn Met Val Thr Asp
3502          100          105          110
3504 Glu His Phe Ile Val Arg Ile Pro Asp Asn Leu Pro Leu Asp Gly Ala
3505          115          120          125
3507 Ala Pro Leu Leu Cys Ala Gly Ile Thr Thr Tyr Ser Pro Trp Arg Tyr
3508          130          135          140
3510 Tyr Gly Leu Asp Lys Pro Gly Met His Leu Gly Val Glu Trp Pro Arg
3513 145          150          155          160
3515 Arg Phe Arg Ser Arg Pro Pro Leu Asn Leu Pro Gly Leu Trp Gly Ser
3516          165          170          175
3518 Arg Leu Gln Ser Leu Val Pro Pro Leu Ile Lys Glu Gly Gly Ser Tyr
3519          180          185          190

```

RAW SEQUENCE LISTING

DATE: 05/15/2002

PATENT APPLICATION: US/09/857,518

TIME: 16:13:41

Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

```

3521 Gly Thr Ser Pro Ala Leu Met His Ser Leu Leu Arg Thr Asp Gln Asp
3522                195                200                205
3524 Gln Met Glu Ala Ala Met Ser Thr Met Asp Gly Ile Ile Asp Thr Val
3525                210                215                220
3527 Pro Ala Val Arg Pro Leu Glu Pro Leu Ile Ser Leu Leu Lys Thr Asn
3528 225                230                235                240
3530 Gly Lys Val Val Thr Val Gly Ile Ala Val Gln Pro Leu Asp Leu Pro
3531                245                250                255
3533 Val Phe Pro Leu Ile Ile Gly Arg Lys Met Val Ala Gly Ser Ala Ile
3534                260                265                270
3536 Gly Gly Met Lys Glu Thr Gln Glu Met Ile Asp Phe Ala Ala Glu His
3537                275                280                285
3539 Asn Ile Thr Ala Asp Ile Glu Val Ile Pro Ile Asp Tyr Leu Asn Thr
3540                290                295                300
3542 Ala Met Glu Arg Val Val Lys Lys Asp Val Arg Phe Arg Phe Val Ile
3543 305                310                315                320
3545 Asp Val Glu Asn Thr Leu
3546                325

```

3548 <210> SEQ ID NO: 32

3549 <211> LENGTH: 278

3550 <212> TYPE: PRT

3551 <213> ORGANISM: *Fragaria x ananassa*

3552 <223> OTHER INFORMATION: Strawberry alcohol dehydrogenase

3554 <400> SEQUENCE: 32

```

3555 Lys Val Gln Lys Phe Lys Val Gly Asp Lys Val Gly Val Gly Cys Leu
3558 1                5                10                15
3560 Val Gly Ser Cys Lys Thr Cys Asp Ser Cys Ala Asn Asp Leu Glu Asn
3561                20                25                30
3563 Tyr Cys Pro Lys Gln Ile Gln Thr Tyr Gly Ala Lys Tyr Leu Asp Gly
3564                35                40                45
3566 Thr Thr Thr Tyr Gly Gly Tyr Ser Asp Ile Met Val Ala Asp Glu Ala
3567                50                55                60
3569 Phe Val Ile Arg Ile Pro Asp Asn Leu Pro Leu Glu Gly Ala Ala Pro
3570 65                70                75                80
3572 Leu Leu Cys Ala Gly Ile Thr Thr Tyr Ser Pro Leu Arg Tyr Phe Gly
3573                85                90                95
3575 Leu Asp Lys Pro Gly Met His Val Gly Val Val Gly Leu Gly Gly Leu
3576                100               105               110
3578 Gly His Val Ala Val Lys Phe Ala Lys Ala Leu Gly Val Asn Val Thr
3579                115               120               125
3581 Val Ile Ser Thr Ser Ala Asn Lys Lys Asp Glu Ala Ile Lys His Leu
3582                130               135               140
3584 Gly Ala Asp Ser Phe Leu Val Ser Arg Asp Gln Asp Gln Met Gln Ala
3585 145               150               155               160
3587 Ala Met Gly Thr Leu Asp Gly Ile Ile Asp Thr Val Ser Ala Val His
3588                165               170               175
3590 Pro Leu Pro Pro Leu Ile Ser Leu Leu Lys Ala Asn Gly Lys Leu Val
3591                180               185               190
3593 Met Val Gly Ala Pro Glu Lys Pro Leu Glu Leu Pro Val Phe Ser Leu

```

RAW SEQUENCE LISTING

DATE: 05/15/2002

PATENT APPLICATION: US/09/857,518

TIME: 16:13:41

Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

3594 195 200 205
 3596 Ile Met Gly Arg Lys Thr Leu Ala Gly Ser Asn Ile Gly Gly Ile Lys
 3597 210 215 220
 3599 Glu Thr Gln Glu Met Ile Asp Leu Ala Ala Lys His Asn Ile Thr Ala
 3600 225 230 235 240
 3603 Asp Ile Glu Ile Ile Pro Ile Asp Tyr Leu Asn Thr Ala Met Glu Arg
 3604 245 250 255
 3606 Leu Ala Lys Gly Asp Val Arg Tyr Arg Phe Val Ile Asp Ile Gly Asn
 3607 260 265 270
 3609 Thr Leu Lys Pro Ala Ile
 3610 275
 3612 <210> SEQ ID NO: 33
 3613 <211> LENGTH: 283
 3614 <212> TYPE: PRT
 3615 <213> ORGANISM: *Fragaria x ananassa* *>42207 insert*
 3616 <223> OTHER INFORMATION: Strawberry alcohol dehydrogenase
 3618 <400> SEQUENCE: 33
 3619 Ala Arg Asp Ser Ser Gly Val Leu Ser Pro Phe Asn Phe Ser Arg Arg
 3620 1 5 10 15
 3622 Glu Thr Gly Glu Lys Asp Val Met Phe Lys Val Leu Tyr Cys Gly Ile
 3623 20 25 30
 3625 Cys His Ser Asp Leu His Met Val Lys Asn Glu Trp Gly Phe Ser Thr
 3626 35 40 45
 3628 Tyr Pro Leu Val Pro Gly His Glu Ile Val Gly Glu Val Thr Glu Val
 3629 50 55 60
 3631 Gly Ser Lys Val Gln Lys Phe Lys Val Gly Asp Arg Val Gly Val Gly
 3632 65 70 75 80
 3634 Cys Val Val Gly Ser Cys Arg Ser Cys Glu Asn Cys Thr Asp His Leu
 3635 85 90 95
 3637 Glu Asn Tyr Cys Pro Lys Gln Ile Leu Thr Tyr Gly Ala Lys Tyr Tyr
 3638 100 105 110
 3640 Asp Gly Thr Thr Thr Tyr Gly Gly Tyr Ser Asp Ile Met Val Ala Asp
 3641 115 120 125
 3643 Glu His Phe Ile Val Arg Ile Pro Asp Asn Leu Pro Leu Asp Gly Ala
 3644 130 135 140
 3648 Ala Pro Leu Leu Cys Ala Gly Ile Thr Thr Tyr Ser Pro Leu Arg Tyr
 3649 145 150 155 160
 3651 Phe Gly Leu Asp Lys Pro Gly Met His Val Gly Val Val Gly Leu Gly
 3652 165 170 175
 3654 Gly Leu Gly His Val Ala Val Lys Phe Ala Lys Ala Met Gly Val Lys
 3655 180 185 190
 3657 Val Thr Val Ile Ser Thr Ser Pro Lys Lys Glu Glu Glu Ala Leu Lys
 3658 195 200 205
 3660 His Leu Gly Ala Asp Ser Phe Phe Val Ser Arg Asp Gln Asp Gln Met
 3661 210 215 220
 3663 Gln Ala Ala Ile Gly Thr Met Asp Gly Ile Ile Asp Thr Val Ser Ala
 3664 225 230 235 240
 3666 Gln His Pro Leu Leu Pro Leu Ile Gly Leu Leu Lys Ser His Gly Lys
 3667 245 250 255

RAW SEQUENCE LISTING

DATE: 05/15/2002

PATENT APPLICATION: US/09/857,518

TIME: 16:13:41

Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

3669 Leu Val Met Val Gly Ala Pro Glu Lys Pro Leu Glu Leu Pro Val Phe
 3670 260 265 270
 3672 Pro Leu Leu Met Gly Arg Lys Met Gly Ser Trp
 3673 275 280
 3675 <210> SEQ ID NO: 34
 3676 <211> LENGTH: 188
 3677 <212> TYPE: PRT
 3678 <213> ORGANISM: Fragaria x ananassa → (2207 insert)
 3679 <223> OTHER INFORMATION: Strawberry alcohol dehydrogenase
 3681 <400> SEQUENCE: 34
 3682 Pro Leu Arg Tyr Phe Gly Leu Asp Lys Pro Gly Met His Val Gly Val
 3683 1 5 10 15
 3685 Val Gly Leu Gly Gly Leu Gly His Val Ala Val Lys Phe Ala Lys Ala
 3686 20 25 30
 3688 Leu Gly Val Glu Val Thr Val Ile Ser Thr Ser Ala Asn Lys Lys Asp
 3689 35 40 45
 3693 Glu Ala Ile Lys His Leu Gly Ala Asp Ser Phe Leu Val Ser Arg Asp
 3694 50 55 60
 3696 Gln Asp Gln Met Gln Ala Ala Met Gly Thr Leu Asp Gly Ile Ile Asp
 3697 65 70 75 80
 3699 Thr Val Ser Ala Val His Pro Leu Pro Pro Leu Ile Ser Leu Leu Lys
 3700 85 90 95
 3702 Ala Asn Gly Lys Leu Val Met Val Gly Ala Pro Glu Lys Pro Leu Glu
 3703 100 105 110
 3705 Leu Pro Val Phe Ser Leu Ile Met Gly Arg Lys Thr Leu Ala Gly Ser
 3706 115 120 125
 3708 Asn Ile Gly Gly Ile Lys Glu Thr Gln Glu Met Ile Asp Leu Ala Ala
 3709 130 135 140
 3711 Lys His Asn Ile Thr Ala Asp Ile Glu Val Ile Pro Ile Asp Tyr Leu
 3712 145 150 155 160
 3714 Asn Thr Ala Met Glu Arg Leu Ala Lys Gly Asp Val Arg Tyr Arg Phe
 3715 165 170 175
 3717 Val Ile Asp Ile Gly Asn Thr Leu Lys Pro Ala Thr
 3718 180 185
 4108 <210> SEQ ID NO: 39
 4109 <211> LENGTH: 181
 4110 <212> TYPE: PRT
 4111 <213> ORGANISM: Fragaria x ananassa → (2207 insert)
 4112 <223> OTHER INFORMATION: Strawberry alcohol dehydrogenase
 4114 <400> SEQUENCE: 39
 4115 Phe Gly Leu Asp Val Gly Gly Leu Arg Gly Gly Ile Leu Gly Leu Gly
 4116 1 5 10 15
 4118 Gly Val Gly His Met Gly Val Lys Ile Ala Lys Ala Met Gly His His
 4119 20 25 30
 4121 Ile Thr Val Ile Ser Ser Ser Asp Lys Lys Lys Lys Glu Ala Leu Glu
 4122 35 40 45
 4124 His Ile Gly Ala Asp Glu Tyr Leu Val Ser Ser Asp Ala Thr Gln Met
 4125 50 55 60
 4127 Gln Glu Ala Met Asp Ser Leu Asp Tyr Ile Ile Asp Thr Ile Pro Val

RAW SEQUENCE LISTING

DATE: 05/15/2002

PATENT APPLICATION: US/09/857,518

TIME: 16:13:41

Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

```

4128 65          70          75          80
4130 Phe His Pro Leu Glu Pro Tyr Leu Ser Leu Leu Lys Leu Asp Gly Lys
4131          85          90          95
4133 Leu Ile Leu Met Gly Val Ile Asn Thr Pro Leu Gln Phe Val Ser Pro
4134          100          105          110
4136 Leu Val Met Leu Gly Glu Glu Asp Asp His Arg Glu Leu Cys Gly Glu
4137          115          120          125
4139 His Glu Gly Asp Gly Gly Asp Ala Arg Val Leu Gln Arg Glu Arg Ala
4140          130          135          140
4143 Glu Thr Met Ile Glu Val Val Lys Met Asp Tyr Ile Asn Glu Ala Phe
4144 145          150          155          160
4146 Glu Arg Leu Glu Lys Asn Asp Val Arg Tyr Arg Phe Val Val Asp Cys
4147          165          170          175
4149 Cys Arg Gln Gln Ser
4150          180

```

The types of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

4152 <210> SEQ ID NO: 40

4153 <211> LENGTH: 176

4154 <212> TYPE: PRT

4155 <213> ORGANISM: Fragaria x ananassa

><2207 insert>

4156 <223> OTHER INFORMATION: Strawberry alcohol dehydrogenase

4158 <400> SEQUENCE: 40

```

4159 Val His Cys Tyr Ala Tyr Glu Gly Lys Met Gln Glu His Leu Gln Leu
4160 1 5 10 15
4162 Cys Glu Asp Glu Phe Lys Lys Ile Met Lys Ile Asn Phe Met Ser Ala
4163 20 25 30
4165 Trp Phe Leu Val Asn Ala Val Gly Arg Arg Met Arg Asp His Lys Ser
4166 35 40 45
4168 Gly Gly Ser Ile Ile Leu Leu Thr Ser Ile Val Gly Ala Glu Arg Gly
4169 50 55 60
4171 Leu Tyr Thr Gly Ala Val Ala Tyr Gly Ala Cys Ser Ala Ala Leu Gln
4172 65 70 75 80
4174 Gln Leu Val Arg Ser Ser Ala Leu Glu Ile Gly Lys Tyr Gln Ile Arg
4175 85 90 95
4177 Val Asn Ala Ile Ala Arg Gly Leu His Leu Glu Asp Glu Phe Pro Lys
4178 100 105 110
4180 Ser Val Gly Ile Glu Arg Ala Lys Lys Leu Val Asn Asp Ala Val Pro
4181 115 120 125
4183 Leu Glu Arg Trp Leu Asp Val Lys Asn Asp Val Ala Ser Ser Val Ile
4184 130 135 140
4188 Tyr Leu Val Ser Asp Gly Ser Arg Tyr Met Thr Gly Thr Thr Ile Phe
4189 145 150 155 160
4191 Val Asp Gly Ala Gln Ser Leu Val Arg Pro Arg Met Arg Ser Tyr Met
4192 165 170 175

```

4580 <210> SEQ ID NO: 50

4581 <211> LENGTH: 28

4582 <212> TYPE: DNA

4583 <213> ORGANISM: Artificial Sequence

4585 <220> FEATURE:

4586 <221> NAME/KEY:

p.23

RAW SEQUENCE LISTING

DATE: 05/15/2002

PATENT APPLICATION: US/09/857,518

TIME: 16:13:41

Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

4587 <222> LOCATION:

4588 <223> OTHER INFORMATION: PCR Primer

4590 <220> FEATURE:

4593 <223> OTHER INFORMATION: AAP166

4595 <400> SEQUENCE: 50

4596 cgtcgacccat tgcacgagcc acataatc 28

E--> 4599

10

delete

Use of n and/or Xaa has been detected in the Sequence Listing.
Review the Sequence Listing to insure a corresponding
explanation is presented in the <220> to <223> fields of
each sequence using n or Xaa.

nt

FYI
Use of n and/or Xaa has been detected in the Sequence Listing.
Review the Sequence Listing to insure a corresponding
explanation is presented in the <220> to <223> fields of
each sequence using n or Xaa.

VERIFICATION SUMMARY

DATE: 05/15/2002

PATENT APPLICATION: US/09/857,518

TIME: 16:13:42

Input Set : A:\EP.txt

Output Set: N:\CRF3\05152002\I857518.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application Number
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:771 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:6
L:1284 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1285 M:281 W: Numeric Fields not Ordered, <222> Sort in ascending order!
L:1410 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:1392
L:1686 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:14
L:2330 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:19
L:2427 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:20
L:2518 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:21
L:2617 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:22
L:2708 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:23
L:2799 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:24
L:2903 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:25
L:2997 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:26
L:3095 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:27
L:3180 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:28
L:3278 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:29
L:3409 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:30
L:3482 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:31
L:3554 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:32
L:3618 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:33
L:3681 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:34
L:4114 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:39
L:4158 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:40
L:4200 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:41
L:4359 M:200 E: Mandatory Header Field missing, <220> not found for SEQ ID#:43
L:4521 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:4525 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:46
L:4526 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0
L:4540 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:4545 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:47
L:4548 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0
L:4555 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:48
L:4556 M:283 W: Missing Blank Line separator, <220> field identifier
L:4562 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0
L:4570 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:49
L:4586 M:257 W: Feature value mis-spelled or invalid, <221> Name/Key for SEQ ID#:50
L:4599 M:254 E: No. of Bases conflict, this line has no nucleotides.

VERIFICATION SUMMARY

DATE: 10/16/2003

PATENT APPLICATION: US/09/857,518A

TIME: 11:46:14

Input Set : A:\CRFSEQLIST062203.txt

Output Set: N:\CRF4\10162003\I857518A.raw

4 M:271 C: Current Filing Date differs, Replaced Current Filing Date
361 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:1392
382 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0
402 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0
419 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0